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THE UNITED STATES PATENT AND TRADEMARK OFFICE

(205.001)

In the Application of: **WOBBEN**

Serial No: **10/089,774**

Priority Date: **OCTOBER 6, 1999**

Title: **METHOD FOR MONITORING WIND POWER PLANTS**

Group Art Unit: **2857**

Examiner:

Assistant Commissioner for Patents
Washington, DC 20231

TRANSMITTAL COVER LETTER

Dear Sir:

With respect to the above-referenced application, transmitted herewith is a **PRELIMINARY AMENDMENT** (8 pages)

The fee has been calculated as shown below:

CLAIMS AS AMENDED						
	Claims Remaining	Highest Number Previously Paid	Extra	Rate		Amount
				Large	Small	
Number of Claims In Excess of 20	26	20	6	$18.00	$9.00	$108.00
Independent Claims In Excess of 3	3	3	0	$80.00	$40.00	-0-
Extension Fee: a) One Month b) Two Months c) Three Months				$110.00 $400.00 $920.00	$55.00 $200.00 $460.00	-0-
TOTAL FEE DUE:						$108.00

Method of Payment:

[XX] A check payable to the Commissioner of Patents and Trademarks, in the amount of $108.00 is enclosed as payment of the Total Fee.

[ ] Please charge my Deposit Acc. 50-0763 in the amount of $_____ to cover the above fees. A duplicate copy of this sheet is enclosed.

[XX] The Commissioner is hereby authorized to charge any fees that may be required, or credit any overpayment to Deposit Acc. 50-0763. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

Date: August 15, 2002

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
(205.001)

In re Application of: **WOBBEN**

Serial No: **10/089,774**) Group Art Unit:

International Filing Date: **JULY 7, 2000**) Examiner:

Priority Date: **OCTOBER 6, 1999**

Title: **METHOD FOR MONITORING WIND POWER PLANTS**

Assistant Commissioner for Patents
Washington, D.C. 20231

CERTIFICATE OF MAILING UDER 37 CFR 1.8

I hereby certify that the attached (1) Transmittal Letter (1 page and 1 copy thereof), (2) Preliminary Amendment (8 pages), and (3) check ($108.00) are being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to:

Assistant Commissioner for Patents
Washington, D.C. 20231

on August 15, 2002.

Michiko Sites
Signature

Michiko Sites
Print Name of Person Signing Certificate

#8/Pre-Amdt
9/5/02

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
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In re Application of: **WOBBEN**

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Group Art Unit:

Examiner:

Assistant Commissioner for Patents
Washington, D.C. 20231

PRELIMINARY AMENDMENT

Dear Sir:

Preliminary to the examination of the above-referenced application, kindly amend the application as follows:

IN THE CLAIMS

Please **DELETE** claims 1-8, without prejudice.

Please **ADD** the following claims:

9. **(NEW)** A method of acoustically monitoring a wind power installation having a plurality of components including at least rotor blades, the method comprising:

detecting an operating acoustic spectrum generated by at least one of the components during operation of the wind power installation;

comparing the operating acoustic spectrum to a reference acoustic spectrum;

detecting a deviation between the operating acoustic spectrum and the reference acoustic spectrum; and

detecting whether the deviation between the operating acoustic spectrum and the reference acoustic spectrum exceeds a threshold.

10. (**NEW**) The method of claim 9 wherein the reference acoustic spectrum is an acoustic spectrum produced by the component during normal operation.

11. (**NEW**) The method of claim 9 wherein the reference acoustic spectrum is an acoustic spectrum that is expected to be generated by the component during normal operation.

12. (**NEW**) The method of claim 9 wherein when the deviation between the operating acoustic spectrum and the reference acoustic spectrum exceeds the threshold, the operation of the wind power installation is automatically or manually terminated.

13. (**NEW**) The method of claim 9 further including:

repetitively detecting the operating acoustic spectrum generated by the component of the wind power installation;

repetitively comparing the detected operating acoustic spectrums to a reference acoustic spectrum;

detecting whether the comparison between the detected operating acoustic spectrums to a reference acoustic spectrum exceeds a threshold.

14. (**NEW**) The method of claim 9 further including:

continuously detecting the operating acoustic spectrum generated by the component of the wind power installation;

comparing the detected operating acoustic spectrums to a reference acoustic spectrum;

detecting whether the comparison between the detected operating acoustic spectrums to a reference acoustic spectrum exceeds a threshold.

15. (**NEW**) The method of claims 13 and 14 further including generating an acoustic spectrum database using the detected operating acoustic spectrums.

16. (**NEW**) A method of acoustically monitoring a wind power installation having a plurality of components including at least rotor blades, the method comprising:

detecting a first operating acoustic spectrum generated by at least one component during operation of the wind power installation at a first power output level;

detecting a second operating acoustic spectrum generated by the component during operation of the wind power installation at a second power output level;

comparing the first operating acoustic spectrum to a first reference acoustic spectrum;

comparing the first operating acoustic spectrum to a second reference acoustic spectrum;

detecting whether a deviation between the first operating acoustic spectrum and the first reference acoustic spectrum exceeds a first threshold; and

detecting whether a deviation between the second operating acoustic spectrum and the first reference acoustic spectrum exceeds a second threshold.

17. (**NEW**) The method of claim 16 wherein the first reference acoustic spectrum is the acoustic spectrum produced by the component during normal operation and while the wind power installation is operating at the first power output level.

18. (**NEW**) The method of claim 17 wherein the second reference acoustic spectrum is the acoustic spectrum produced by the component during normal operation and while the wind power installation is operating at the first power output level.

19. (**NEW**) The method of claim 16 wherein the first reference acoustic spectrum is an acoustic spectrum that is expected to be generated by the component during normal operation and while the wind power installation is operating at the first power output level.

20. (**NEW**) The method of claim 19 wherein the second reference acoustic spectrum is an acoustic spectrum that is expected to be generated by the component during normal operation and while the wind power installation is operating at the second power output level.

21. (**NEW**) The method of claim 16 wherein when the deviation between the first operating acoustic spectrum and the first reference acoustic spectrum exceeds the first threshold, the operation of the wind power installation is automatically or manually terminated.

22. (**NEW**) The method of claim 16 wherein when the deviation between the second operating acoustic spectrum and the second reference acoustic spectrum exceeds

the second threshold, the operation of the wind power installation is automatically or manually terminated.

23. (**NEW**) The method of claims 16 and 22 wherein the first threshold is equal to the second threshold.

24. (**NEW**) A method of acoustically monitoring a wind power installation having a plurality of components including at least rotor blades, the method comprising:

recording a first noise spectrum generated by at least one component during operation of the wind power installation at a first output power level;

comparing the first noise spectrum to a first reference noise spectrum;

detecting deviations between the first noise spectrum and the first reference noise spectrum;

communicating the deviations to a remote monitoring center; and

communicating signals representative of the sounds that caused the deviations between the first noise spectrum and the first reference noise spectrum to the remote monitoring center.

25. (**NEW**) The method of claim 24 further including continuously or repetitively recording noise spectrums generated by the at least one component during operation of the wind power installation.

26. (**NEW**) The method of claim 24 further including generating an acoustic spectrum database using the recorded noise spectrums.

27. (**NEW**) The method of claim 24 wherein the wind power installation is shut down if the deviations between the first noise spectrum and the first reference noise spectrum exceed a predetermined threshold value.

28. (**NEW**) The method of claim 24 further including:

recording a second noise spectrum generated by the at least one component during operation of the wind power installation at a second output power level;

comparing the second noise spectrum to a second reference noise spectrum;

detecting deviations between the second noise spectrum and the second reference noise spectrum;

communicating the deviations to a remote monitoring center; and

communicating signals representative of the sounds that caused the deviations between the second noise spectrum and the second reference noise spectrum to the remote monitoring center.

29. (**NEW**) The method of claim 28 wherein the first reference noise spectrum is a noise spectrum produced by the component during normal operation and while the wind power installation is operating at a first power output level.

30. (**NEW**) The method of claim 29 wherein the second reference noise spectrum is the noise spectrum produced by the component during normal operation and while the wind power installation is operating at a second power output level.

31. (**NEW**) The method of claim 28 wherein the first reference noise spectrum is a noise spectrum that is expected to be generated by the component during normal operation and while the wind power installation is operating at the first power output level.

32. (**NEW**) The method of claim 31 wherein the second reference noise spectrum is a noise spectrum that is expected to be generated by the component during normal operation and while the wind power installation is operating at the second power output level.

33. (**NEW**) The method of claim 24 wherein when the deviation between the first operating acoustic spectrum and the first reference acoustic spectrum exceeds a predetermined threshold value, the operation of the wind power installation is automatically or manually terminated.

34. (**NEW**) The method of claim 24 wherein when the deviation between the second operating acoustic spectrum and the second reference acoustic spectrum exceeds a predetermined threshold value, the operation of the wind power installation is automatically or manually terminated.